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Claims

What is claimed is:

1   1.   A computer implemented user interactive method for
2   graphically displaying the proportion of a total value of
3   a time dependent variable contributed by each of a set of
4   elements comprising the steps of:
5   displaying the proportion contributed by each
6   element as an area within an ordered set of areas under a
7   line representative of the total value of said time
8   dependent variable;
9   enabling the user to interactively select one of
10   said set of areas; and
11   performing a selected operation selected from the
12   group consisting of hiding the selected area, displaying
13   the selected area and reordering the position of the
14   selected area within said ordered set responsive to said
15   user selection.

1   2.   The method of claim 1 wherein said ordered set of
2   areas under said line comprises a stacked area graph
3   formed by said ordered set of areas under said line.

1   3.   The method of claim 2 wherein:
2   the selected operation performed is hiding the
3   selected area; and
4   further including the step, responsive to said
5   hiding step, of reforming at least one of the remaining
6   displayed areas so as to represent the resulting change
7   of said reformed area within said ordered set of stacked
8   areas.

1 4. The method of claim 2 wherein:
2   the selected operation performed is displaying a
3 selected undisplayed area; and
4   further including the step, responsive to said step
5 of displaying, of reforming at least one of the other
6 displayed areas so as to represent the resulting change
7 of said reformed area within said ordered set of stacked
8 areas.

1 5. The method of claim 2 wherein:
2   the selected operation performed is reordering the
3 position of the selected area within said ordered set;
4 and
5   further including the step, responsive to said step
6 of reordering the position of the selected area within
7 said ordered set, of reforming at least one of the other
8 displayed areas so as to represent the resulting change
9 of said reformed area within said reordered set of
10 stacked areas.

1 6. The method of claim 2 further including the step of:
2   displaying a plurality of icons each representative
3 of one of said areas whereby the user may select one of
4 said areas by selecting the icon representative of the
5 selected area.

1 7. The method of claim 2 further including the step of:
2   displaying a plurality of icons each representative
3 of one of said areas whereby the user may reorder the
4 position of the selected area by reordering the position
5 of the selected icon representative of the selected area.

1 8. A data processor controlled user interactive display
2 system for graphically displaying the proportion of a
3 total value of a time dependent variable contributed by
4 each of a set of elements comprising:
5   means for displaying the proportion contributed by
6 each element as an area within an ordered set of areas
7 under a line representative of the total value of said
8 time dependent variable;
9   means for enabling the user to interactively select
10 one of said set of areas; and
11   means for performing a selected operation selected
12 from the group consisting of hiding the selected area,
13 displaying the selected area and reordering the position
14 of the selected area within said ordered set responsive
15 to said user selection.

1 9. The display system of claim 8 wherein said ordered
2 set of areas under said line comprises a stacked area
3 graph formed by said ordered set of areas under said
4 line.

1 10. The display system of claim 9 wherein:
2   the selected operation performed is hiding the
3 selected area; and
4   further including means, responsive to said hiding
5 operation, for reforming at least one of said remaining
6 displayed areas so as to represent the resulting change
7 of said reformed area within said ordered set of stacked
8 areas.

1 11. The display system of claim 9 wherein:
2   the selected operation performed is displaying a
3 selected undisplayed area; and
4   further including means, responsive to said
5 displaying of said undisplayed area, for reforming at
6 least one of the other displayed areas so as to represent
7 the resulting change of said reformed area within said
8 ordered set of stacked areas.

1 12. The display system of claim 9 wherein:
2   the selected operation performed is reordering the
3 position of the selected area within said ordered set;
4 and
5   further including means, responsive to said means
6 for reordering the position of the selected area within
7 said ordered set, for reforming at least one of the other
8 displayed areas so as to represent the resulting change
9 of said reformed area within said reordered set of
10 stacked areas.

1 13. The display system of claim 9 further including a
2 plurality of icons on said display each representative of
3 one of said areas whereby the user may select one of said
4 areas by selecting the icon representative of the
5 selected area.

1 14. The display system of claim 9 further including:
2   a plurality of icons on said display each
3 representative of one of said areas; and
4   means enabling the user to interactively reorder the
5 position of the selected area by reordering the position
6 of the selected icon representative of the selected area.

1   15. A computer program having code recorded on a
2   computer readable medium for graphically displaying the
3   proportion of a total value of a time dependent variable
4   contributed by each of a set of elements in a computer
5   controlled user interactive display system comprising:
6   means for displaying the proportion contributed by
7   each element as an area within an ordered set of areas
8   under a line representative of the total value of said
9   time dependent variable;
10   means for enabling the user to interactively select
11   one of said set of areas; and
12   means for performing a selected operation selected
13   from the group consisting of hiding the selected area,
14   displaying the selected area and reordering the position
15   of the selected area within said ordered set responsive
16   to said user selection.

1   16. The computer program of claim 15 wherein said
2   ordered set of areas under said line comprises a stacked
3   area graph formed by said ordered set of areas under said
4   line.

1   17. The computer program of claim 16 wherein:
2   the selected operation performed is hiding the
3   selected area; and
4   further including means, responsive to said hiding
5   operation, for reforming at least one of said remaining
6   displayed areas so as to represent the resulting change
7   of said reformed area within said ordered set of stacked
8   areas.

1 18. The computer program of claim 16 wherein:
2   the selected operation performed is displaying a
3 selected undisplayed area; and
4   further including means, responsive to said
5 displaying of said undisplayed area, for reforming at
6 least one of the other displayed areas so as to represent
7 the resulting change of said reformed area within said
8 ordered set of stacked areas.

1 19. The computer program of claim 16 wherein:
2   the selected operation performed is reordering the
3 position of the selected area within said ordered set;
4 and
5   further including means, responsive to said means
6 for reordering the position of the selected area within
7 said ordered set, for reforming at least one of the other
8 displayed areas so as to represent the resulting change
9 of said reformed area within said reordered set of
10 stacked areas.

1 20. The computer program of claim 16 further including a
2 plurality of icons on said display each representative of
3 one of said areas whereby the user may select one of said
4 areas by selecting the icon representative of the
5 selected area.

1 21. The method of claim 2 wherein said selected
2 operation is performed by morphing the displayed stacked
3 area graph through an animated display sequence of
4 stacked graphs.

1   22.   The display system of claim 9 wherein said means for
2   performing said selected operation, perform the operation
3   by morphing the displayed stacked area graph through an
4   animated display sequence of stacked graphs.

1   23.   The computer program of claim 16 wherein said means
2   for performing said selected operation, perform the
3   operation by morphing the displayed stacked area graph
4   through an animated displayed sequence of stacked graphs.